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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,889	07/14/2003	Ralph Cilevitz	GC-520	5874

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EXAMINER

CHIN, PETER

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,889

Applicant(s)

CILEVITZ, RALPH

Examiner

Peter Chin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) 1 and 16-31 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 2-15 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of the Group II invention and the concave species in the reply filed on February 16, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 1, 16-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.
3. Claims 3 and 6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being possibly enabling for suppressing saturation of the base paper with the saturant containing the conductive agent having a viscosity between 20 and 200 cps at 100 °F Brookfield viscometer (pages 9 and 10 of the specification), does not reasonably provide enablement for saturants outside the disclosed viscosity. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The disclosure does not define what constitutes "suppressing" the saturation of the paper by the saturant containing the conductive additive while not suppressing the delivering of the anti-static agent to the interstices of the fibrous base paper. If the anti-static additive were present in the interstices of the paper when the paper is saturated with the saturant composition, it would appear that the paper is completely saturated with saturant. The specification is not clear. However, the only

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apparent disclosed definition as to what is meant by limiting or "suppressing" saturation is based on the viscosity of the saturant or impregnant being in the range of between 20 and 200 cps at 100 °F. However, there is no disclosure of what spindle was used in measuring the Brookfield viscosity and what rpm(s) the measurement was made. Therefore the disclosed viscosity has little if no meaning and the claims apparently are not enabled in any case by the disclosure.

4. Claims 2,3 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Finch (2,310,946).

For the purposes of this rejection, it is noted that the present claims are open to a conductive paper base sheet by virtue of the "comprising" claim language and the recitation of "anti-static paper" in the preamble of the claim " does not impart further patentable weight to the claim since it is merely a statement of intended use of an electrically conductive paper.

Finch discloses a process for making electroconductive recording paper. A conductive carbon filled paper is coated with a electroconductive powdered metal composition having a viscosity that would not allow the coating composition to penetrate into the paper and achieve uniform saturation and uniform coat thickness of the paper, page 1The claimed antistatic agent reads on the electroconductive metal powder. While Finch does not specifically state that the anti-static agent is deposited in the interstices, it is clear that this inherently occurs as the coating containing the conductive metal particles uniformly coats or covers the surface of the paper and therefore depositing the particles in at least

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some of the interstices of the paper at its surface. Thus, Finch anticipates or obviously shows the claimed product.

5. Claims 2-4, 6,8-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Armington et al (4,806,410).

Armington et al discloses a method for making anti-static paper. Two methods are disclosed and are illustrated in Figures 1 and 2. The first process is application to the formed paper web during the papermaking operation, i.e., on-machine sizing/impregnating, is illustrated in Figure 1. The second is the application of the anti-static liquid to a previously formed paper web or off-machine sizing/impregnating, is illustrated in Figure 2. In either case, it is inherent that the anti-static agent is deposited in the interstices of the paper since the liquid is squeezed into the paper. Thus, Armington et al anticipates or obviously shows the invention claimed in claim 2.

In the method of Figure 1, the paper has a preferred porosity of about 5 to about 15 sec./100 ml Gurley Densometer prior to being impregnated with an anti-static liquid in which the preferred antistatic component is a conductive quaternary ammonium polymer. In the off-machine sizing/impregnating method disclosed, the porosity can be that used in the on-machine sizing/impregnating or in any case, a porosity less than 25, column 9, lines 35-48.

Claim 3: The liquid is applied to paper by such device as a size press, which is illustrated in Figure 1. The liquid is squeezed into the web and inherently into the interstices of paper web. The excess liquid is squeezed from the web

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carried off from the roll press nip and collected in receptacle 20. Examples of the viscosity of the anti-static liquid are given in Table 1, column 6. To the extent that the term "viscosity in the range that suppresses saturation", the limitation or inherently met or obviously met by the aforementioned disclosure in Armington et al.

Claim 6: The starch in Armington increases the viscosity, see Table 9 and compare the control containing 10% polymer and no starch and the two examples containing cationic starch and the polymer.

Claim 8: Armington et al in the examples does not use paper containing fillers. In as much as the ash content is the reflection of inorganic filler content, it is reasonable to expect that the ash content of Armington et al's paper to be below 15%. Thus, Armington et al anticipates or obviously shows the claimed invention.

Claims 9 and 10: Table 9, column 13 spanning column 14, shows anti-static/conductive polymer and cationic starch in concentration of between 20 and 11 % by weight total solids. The ratio of conductive polymer to starch ranges from 1:1 (50% polymer and 50% starch) to 9:1 (90% polymer and 10% starch). It is noted that the claimed starch is inclusive of cationic starch of Armington et al.

Claim 11, the claimed moisture content of the paper is shown in Table 2 in Armington et al.

Claims 12-15: Figure 3 shows the paper formed into a product that has a irregular concave surface as claimed. Additionally in regard to claim 14 because of the irregular surface, it is inherent or obvious that it is not nesting.

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6. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armington et al (4,806,410).

Claim 5: As noted above, Armington in the embodiment using a preformed roll of paper as the starting paper as shown in Figure 2, the Gurley porosity, though the same porosity as the embodiment where on-machine impregnation can be used, only has to be less than 25 sec/100ml, column 9, lines 43-48. It would have been obvious to employ the claimed viscosity as it would depend on the desired amount of conductive polymer, surface resistivity and static decay rate.

Claim 7: Armington et al discloses that it is well known practice to size paper materials such as starch and rosin to improve its surface, grease and water resistance, column 5. It would have been obvious to employ internal addition as it is a conventional technique in the art. If evidence is required see the discussion in column 5 of McCarthy et al (5,898,696) of the purpose of sizing and the alternativeness of surface and internal sizing with typical sizes as starch and rosin.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (571) 272-1186. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Peter Chin". The signature is fluid and cursive, with the first name "Peter" and last name "Chin" clearly distinguishable.

Peter Chin
Primary Examiner
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